



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,815	03/18/2004	Su Chin Chang	M61.12-0606	7128

27366 7590 01/08/2009
WESTMAN CHAMPLIN (MICROSOFT CORPORATION)
SUITE 1400
900 SECOND AVENUE SOUTH
MINNEAPOLIS, MN 55402-3244

EXAMINER

DARNO, PATRICK A

ART UNIT	PAPER NUMBER
----------	--------------

2169

MAIL DATE	DELIVERY MODE
-----------	---------------

01/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/804,815	Applicant(s) CHANG ET AL.	
	Examiner PATRICK A. DARNO	Art Unit 2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7-20,32,33 and 39-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-20,32,33 and 39-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05302008 and 08112008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. No new claims are added. Claims 4, 6, 21-31, and 34-38 are canceled. Claims 1, 14, 16, 32, and 41 are amended. Claims 1-3, 5, 7-20, 32-33, and 39-52 are pending in this office action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-3, 5, 7-20, 32-33, and 39-52 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claim 1, the claim recites a method. However, based upon the language set forth in claim 1 it is reasonable to interpret that the claimed method or process is solely software. It appears that the Applicant may be seeking to patent particular programmed functionality of method steps, rather than a method or process which is implemented on a computer. Specifically, the claim limitations of ‘receiving...’, ‘analyzing the natural language input...’, ‘associating portions...’, and ‘rendering the designated data...’ all appear to be directed to software subroutines. Since the claim limitations appear to be directed to programmed functionality and not to the steps of a method or process which is not tied to another statutory category, the claim stands rejected under 35 U.S.C. 101.

In order to overcome this rejection, the Applicant must amend claim 1 such that there is some recitation of computer hardware which would then ensure that claim 1 is limited to a computer implemented method, wherein the method or process is tied to a hardware device as

Art Unit: 2169

opposed to being directed to simply software. Doing so ensures that the claimed invention is strictly limited to method or process which satisfies the requirements of 35 U.S.C. 101.

Claims 2-3, 5, 7-20, 32-33, and 39-52 are rejected under 35 U.S.C. 101 because they fail to resolve the deficiencies of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5, 7, 11, 14-17, 19-20, 32-33, 39-44, 48, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,734,889 issued to Tomoharu Yamaguchi (hereinafter “Yamaguchi”) and further in view of U.S. Patent issued to Yasuharu Namba et al. (hereinafter “Namba”).

Claim 1:

Yamaguchi discloses a method of processing data stored in a structured data source, comprising:

receiving a natural language input (*Yamaguchi: see at least column 2, lines 60-67 and column 4, lines 26-39*);

analyzing the natural language input to identify semantic information contained therein (*Yamaguchi: see at least column 2, lines 60-67 and column 4, lines 26-39 and column 5, lines 20-27*);

associating portions of the natural language input with a command object identifying a command from a plurality of commands (*Yamaguchi: column 5, lines 64-67 and column 6, lines 10-13; Note that the original natural language input is received by the computer system and parsed into multiple portions (Yamaguchi: Fig. 19). The command portion of the natural language input is then associated with a command object in a particular object language. For instance, the example is given of translating the natural language input into a SQL statement. Finally, note that the natural language input is associated with one of a plurality of SQL commands.*), and an entity object of a schema based on the semantic information and the natural language input (*Yamaguchi: Figs. 14-17; The entity object associated with the natural language input is the actual table from which the data will be retrieved from. So in Fig. 14 for example, the entity object associated with the natural language input is the table storing the company information (name, address, telephone, and fax).*), wherein the entity object relates to data in the data source that is to be rendered based on the command object and the frame object (*Yamaguchi: see at least column 2, lines 60-67 and column 4, lines 26-39 and column 5, lines 20-27 and abstract and Figs. 14-17*); and

rendering data from the data source in a table of columns and rows based on the schema and the associated portions of the natural language input (*Yamaguchi: see at least abstract*).

Yamaguchi does not expressly disclose wherein the plurality of commands are related to rendering data that has been retrieved from the structured data source and designated for rendering, and a frame object identifying an arrangement for rendering the designated data selected from a plurality of difference arrangements for rendering data.

However, Namba discloses:

wherein the plurality of commands are related to rendering data that has been retrieved from the structured data source and designated for rendering (*Namba: Fig. 1 and column 8, lines 33-42*

Art Unit: 2169

and column 4, lines 51-57), and a frame object identifying an arrangement for rendering the designated data selected from a plurality of difference arrangements for rendering data (Namba: column 7, lines 9-19 and column 8, lines 33-67 and column 4, lines 51-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Yamaguchi with the teachings of Namba noted above. The skilled artisan would have been motivated to improve the teachings of Yamaguchi per the above in order to reduce the development man-hours of editors designing a report (*Namba: column 25, lines 5-10*).

Claim 2:

The combination of Yamaguchi and Namba discloses all the elements of claim 1, as noted above, and Yamaguchi further discloses a method comprising accessing the data source to identify words and phrases associated with dimensions in the data source (*Yamaguchi: see at least column 2, lines 60-67 and column 4, lines 26-39 and column 5, lines 20-27*).

Claim 3:

The combination of Yamaguchi and Namba discloses all the elements of claim 2, as noted above, and Yamaguchi further discloses wherein accessing further comprises identifying words and phrases associated with levels and values in the data source (*Yamaguchi: see at least column 2, lines 60-67 and column 4, lines 26-39 and column 5, lines 20-27*).

Claim 5:

The combination of Yamaguchi and Namba discloses all the elements of claim 1, as noted above, and Yamaguchi further discloses wherein the command object relates to a task to be

Art Unit: 2169

performed for rendering data (*Yamaguchi: see at least column 2, lines 60-67 and column 4, lines 26-39 and column 5, lines 20-27 and abstract*).

Claim 7:

The combination of Yamaguchi and Namba discloses all the elements of claim 1, as noted above, and Namba further discloses:

changing the table based on a further command received (*Namba: column 18, lines 24-47; column 28, lines 20-49*);).

Claim 11:

The combination of Yamaguchi and Namba discloses all the elements of claim 7, as noted above, and Namba further discloses wherein the further command is adding information to the table (*Namba: column 18, lines 24-47*).

Claim 14:

The combination of Yamaguchi and Namba discloses all the elements of claim 1, as noted above, and Namba further discloses:

rendering a plurality of candidate tables based on a plurality of candidate interpretations of semantic information provided in the natural language input (*Namba: column 7, lines 40-45*).

Claim 15:

The combination of Yamaguchi and Namba discloses all the elements of claim 1, as noted above, and Yamaguchi further discloses:

providing an interactive interface to a user for entering the natural language input (*Yamaguchi: see at least column 2, lines 60-67 and column 4, lines 26-39 and column 5, lines 20-27 and abstract*).

Claim 16:

Claim 16 is rejected under the same reasons set forth in the rejection of claim 14.

Claim 17:

The combination of Yamaguchi and Namba discloses all the elements of claim 1, as noted above, and Yamaguchi further discloses:

rendering a natural language description of information in the table (*Yamaguchi: see at least column 2, lines 60-67 and column 4, lines 26-39 and column 5, lines 20-27 and abstract; At least the data in the generated table (spreadsheet) is natural language.*).

Claim 19:

The combination of Yamaguchi and Namba discloses all the elements of claim 1, as noted above, and Namba further discloses:

associating portions of the natural language input with words and phrases associated with the data source (*Namba: Fig. 1 and column 8, lines 9 - 16*).

Claim 20:

Claim 20 is rejected under the same reasons set forth in the rejection of claim 14.

Claim 32:

Claim 32 is rejected under the same reasons set forth in the rejection of claims 1, 14, and 16.

Claims 33 and 39-40:

Claims 33 and 39-40 are rejected under the same reasons set forth in the rejection of claims 1-3, 5, 7, 11, 14-17, 19-20, and 32.

Claim 41:

Claim 41 is rejected under the same reasons set forth in the rejection of claims 1 and 7.

Claims 42-44:

Claims 42-44 are rejected under the same reasons set forth in the rejection of claims 1-5, 7, 11, 14-17, 19-20, 32, and 41.

Claim 48:

Claim 48 is rejected under the same reasons set forth in the rejection claim 11.

Claim 51:

Claim 51 is rejected under the same reasons set forth in the rejection of claim 19.

Claim 52:

The combination of Yamaguchi and Namba discloses all the elements of claim 41, as noted above, and Yamaguchi further discloses wherein the second natural language input includes a command that is different from the command object (*Yamaguchi: column 5, lines 64-67 and column 6, lines 10-13; The inputted natural language statement is a retrieve command. This command is translated to the command object in the schema (retrieval formula written in SQL). This is written SQL formula is a structured query language programming statement wherein the inputted command is a natural language statement. At the very least, the two commands are different in name (natural language is "retrieve" and SQL is some form of "Select") and structure (a structured query language as a particular syntax that is different from a natural language statement).*).

Art Unit: 2169

4. Claims 8-10, 12, 18, 45-47, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi in view of Namba and further in view of U.S. Patent Application Publication Number 2005/0216421 issued to B. Reilly Barry et al. (hereinafter “Barry”).

Claim 8:

The combination of Yamaguchi and Namba discloses all the elements of claim 7, as noted above, but the previously mentioned combination does not explicitly disclose wherein the further command is highlighting a portion of the table.

However, Barry discloses wherein the further command is highlighting a portion of the table (*Barry: see at least paragraph [0362] and paragraph [0364] and fig. 25(h)*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of the previously mentioned combination with the teachings of Barry noted above. The skilled artisan would have been motivated to improve the previously mentioned combination per the above such that one could select table columns, thereby providing the user with the means to reorder table columns by dragging and dropping each column to its desired location (*Barry: paragraph [0264]*). Such flexibility in table design lets the user format the table to his/her liking.

Claim 9:

The combination of Yamaguchi and Namba discloses all the elements of claim 7, as noted above, but the previously mentioned combination does not explicitly disclose wherein the further command is sorting a portion of the table.

However, Barry discloses wherein the further command is sorting a portion of the table (*Barry: see at least paragraph [0228] and paragraph [0275] and paragraph [0564]*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings the previously mentioned combination with the teachings of Barry noted above. The skilled artisan would have been motivated to improve the previously mentioned combination per the above such that the user is provided with a means for analyzing and displaying data stored that is stored in a server (*Barry: see at least paragraph [0228]*).

Claim 10:

The combination of Yamaguchi and Namba discloses all the elements of claim 7, as noted above, but the previously mentioned combination does not explicitly disclose wherein the further command is filtering information in the table.

However, Barry discloses wherein the further command is filtering information in the table (*Barry: paragraph [0275]*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of the previously mentioned combination with the teachings of Barry noted above. The skilled artisan would have been motivated to improve the previously mentioned combination per the above such that the user is provided with a means for analyzing and displaying data stored that is stored in a server (*Barry: see at least paragraph [0228]*).

Claim 12:

The combination of Yamaguchi and Namba discloses all the elements of claim 7, as noted above, but the previously mentioned combination does not explicitly disclose wherein the further command is clearing information in the table.

However, Barry discloses wherein the further command is clearing information in the table (*Barry: see at least paragraph [0211] and paragraph [0222] and paragraph [0362]*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of the previously mentioned combination with the teachings of Barry noted above. The skilled artisan would have been motivated to improve the previously mentioned combination per the above such that information that is no longer needed, can be removed from the database management system.

Claim 18:

The combination of Yamaguchi and Namba discloses all the elements of claim 1, as noted above, but the previously mentioned combination does not explicitly disclose:

maintaining a history of previous tables rendered for future use.

However, Barry discloses maintaining a history of previous tables rendered for future use

(Barry: see at least paragraph [0251]; Note that generated reports (tables) can be saved).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of the previously mentioned combination with the teachings of Barry noted above. The skilled artisan would have been motivated to improve the previously combination per the above such that a report that has already been generated does not need to be regenerated in the future. This is advantageous because it avoids performing redundant work.

Claim 45:

Claim 45 is rejected under the same reasons set forth in the rejection of claim 8.

Claim 46:

Claim 46 is rejected under the same reasons set forth in the rejection of claim 9.

Claim 47:

Claim 47 is rejected under the same reasons set forth in the rejection of claim 10.

Claim 49:

Claim 49 is rejected under the same reasons set forth in the rejection of claim 12.

5. Claims 13 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi in view of Namba and further in view of U.S. Patent Number 6,581,068 issued to Pierre Bensoussan et al. (hereinafter “Bensoussan”).

Claim 13:

The combination of Yamaguchi and Namba discloses all the elements of claim 7, as noted above, but the previously mentioned combination does not explicitly disclose wherein the further command includes switching the row and column information.

However, Bensoussan discloses wherein the further command includes switching the row and column information (*Bensoussan: column 10, line 63 - column 11, line 4 and column 16, lines 46-48 and column 17, lines 39-45*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of the previously mentioned combination with the teachings of Bensoussan noted above. The skilled artisan would have been motivated to improve the previously mentioned combination per the above in order to grant the user flexibility to decide how to present stored data.

Claim 50:

Claim 50 is rejected under the same reasons set forth in the rejection of claim 13.

Response to Arguments

Examiner Notes:

- Applicant's arguments appear to be moot in light of new grounds of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK A. DARNO whose telephone number is (571)272-0788. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ali can be reached on (571) 272-4105. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick A. Darno/
Examiner
Art Unit 2169
12-22-2008

PAD

Application/Control Number: 10/804,815
Art Unit: 2169

Page 14

/Mohammad Ali/

Supervisory Patent Examiner, Art Unit 2169